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10/765,422	01/28/2004	Young-Cheol Ham	P56970	2183
7590	11/14/2006		EXAMINER	
Robert E. Bushnell Suite 300 1522 K Street, N.W. Washington, DC 20005			NGUYEN, TU X	
			ART UNIT	PAPER NUMBER
			2618	

DATE MAILED: 11/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/765,422

Applicant(s)

HAM ET AL.

Examiner

Tu X. Nguyen

Art Unit

2618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>1/28/04, 6/1/06</u> | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Information Disclosure Statement***

The information disclosure statement (IDS) submitted on 1/28/06 and 6/1/06 were being considered by the examiner.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 3-6, recites the limitation "said network" is insufficient antecedent basis for this limitation in the claim.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

Claims 1-7 and 10-16, are rejected under 35 U.S.C. 102(e) as being anticipated by McConnell et al. (US Patent 6,970,719).

Regarding claim 1, McConnell et al. disclose a system for providing a private mobile communication service, comprising:

a public base transceiver station disposed within a public/private common cell area and providing a public mobile communication service (see col.10 lines 49-54);

a private base transceiver station disposed within said public/private common cell area and providing a private mobile communication service (see col.13 lines 10-15); and

a first mobile station establishing a radio communication channel with the both the public base transceiver station and the private base transceiver station (see col.10 lines 1-3, col.13 lines 19-20 and col.29 lines 42-43, CDMA is used in private wireless and public wireless systems providing a voice channel for mobile telephone communication corresponds to "a radio communication channel"), when the first mobile station moves from a public-only cell area (see col.16 lines 29-30, "none-overlapping" corresponds to "public only cell area") to said public/private common cell area (see col.13 lines 25-30), said first mobile station determining whether an identifier indicating a request for the private mobile communication service is added to a dialed phone number entered by a user (see col.27 lines 1-6, "\*72" corresponds to "identifier"), establishing a traffic channel (see col.10 lines 1-3, col.13 lines 19-20 and col.29 lines 42-43, CDMA is used in private wireless and public wireless systems providing a voice channel for mobile telephone communication corresponds to "a traffic channel") with the private base transceiver station when it is determined that the identifier is added to the dialed phone number (see col.27 lines 7-11), and establishing a traffic channel (see col.10 lines 1-3, col.13 lines 19-20 and col.29 lines 42-43, CDMA is used in private wireless and public wireless systems providing a voice channel for mobile telephone communication corresponds to "a traffic channel") with the public base transceiver station when it is determined that the identifier is not added to the dialed phone number (see col.27 lines 1-11).

Regarding claim 2, McConnell et al. disclose a private communication service apparatus verifying whether the first mobile station is a subscriber to the private mobile communication service, when a request for establishing a radio communication channel (see col.10 lines 1-3, col.13 lines 19-20 and col.29 lines 42-43, CDMA is used in private wireless and public wireless systems providing a voice channel for mobile telephone communication corresponds to "a radio communication channel") is received by the private base transceiver station from the first mobile station, establishing a radio communication channel (see col.10 lines 1-3, col.13 lines 19-20 and col.29 lines 42-43, CDMA is used in private wireless and public wireless systems providing a voice channel for mobile telephone communication corresponds to "a radio communication channel"), to enable telephonic communication, with the private base transceiver station when it is verified that the first mobile station is a subscriber to the private mobile communication service (see col.27 lines 1-30), and establishing a traffic channel over a network to a called party corresponding to the dialed phone number (see col.10 lines 1-3, col.13 lines 19-20 and col.29 lines 42-43, CDMA is used in private wireless and public wireless systems providing a voice channel for mobile telephone communication corresponds to "a traffic channel"), if a traffic channel request is received from the first mobile station with which the radio communication channel is established (see col.13 lines 10-61, McConnell et al. teaching a private wireless network provides service to mobile stations through the process of registering subscriber and checking subscriber unique identification with user profile database and establish data/voice channel connection for mobile stations).

Regarding claim 3, McConnell et al. disclose network being a public mobile communication network through a public switched telephone network when said called party corresponds to a second mobile station located in the public-only cell area (see col.9 lines 57-65, McConnell et al. teaching a private cellular network with a limited coverage is not exist in some place of a large geographic coverage area by public cellular network; and see col.11 lines 27-60, a mobile station subscribes to a public cellular network).

Regarding claim 4, McConnell et al. disclose network being a wired network (see col.14 lines 41-50) when said called party corresponds to an extension phone connected to a private branch exchange within said private communication service apparatus (see col.19 lines 5-6).

Regarding claim 5, McConnell et al. disclose network being a public mobile communication network accessed by way of a Public Switched Telephone Network (PSTN)/Integrated Services Digital Network (ISDN), when said called party corresponds to a mobile station not registered as belonging to the public/private common cell area (see fig.1, elements 64, 84, 18 and col.27 lines1-10, the called party not register with the public common cell by pressing \*72 and 10-digits directory number).

Regarding claim 6, McConnell et al. disclose network being a private wireless network by way of said private base transceiver station, when said called party corresponds to a second mobile station disposed within said public/private common cell area and registered as belonging to said public/private common cell area (see col.9 lines 57-65, McConnell et al. teaching a private cellular network with a limited coverage is not

Art Unit: 2618

exist in some place of a large geographic coverage area by public cellular network; and see col.11 lines 27-60, a mobile station subscribes to a public cellular network).

Regarding claim 7, McConnell et al. disclose the identifier indicating a request for the private mobile communication service is a character # or a character \* (see col.27 lines 2-10).

Regarding claim 10, McConnell et al. disclose the private communication service apparatus comprising:

a private branch exchange establishing a traffic channel (see col.10 lines 1-3, col.13 lines 19-20 and col.29 lines 42-43, CDMA is used in private wireless and public wireless systems providing a voice channel for mobile telephone communication corresponds to "a traffic channel") with a local extension telephone through a wired local network, when a request for establishing a traffic channel with the local extension telephone is received from the first mobile station (see fig.4, element 84, col.19 lines 5-6);

the private branch exchange (see col.14 lines 41-51) establishing a traffic channel (see col.10 lines 1-3, col.13 lines 19-20 and col.29 lines 42-43, CDMA is used in private wireless and public wireless systems providing a voice channel for mobile telephone communication corresponds to "a traffic channel") with a general telephone through a public switched telephone network (col.10 lines 11-25), when a request for establishing a traffic channel with a general telephone is received from the first mobile station (see col.14 lines 41-51);

the private branch exchange (see col.14 lines 41-51) establishing a traffic channel over a private mobile communication network (see col.10 lines 1-3, col.13 lines 19-20

Art Unit: 2618

and col.29 lines 42-43, CDMA is used in private wireless and public wireless systems providing a voice channel for mobile telephone communication corresponds to "a traffic channel"), when a request for establishing a traffic channel with a mobile station of another service subscriber located in the public/private common cell area is received from the first mobile station (see col.14 lines 41-51);

a private base station controller verifying whether the first mobile station is a subscriber to the private mobile communication service (see col.17 lines 26-45), when the first mobile station requests the private base station controller to establish a radio communication channel through the private base transceiver station (see col.17 lines 26-45); and

the private base station controller establishing a radio communication channel (see col.10 lines 1-3, col.13 lines 19-20 and col.29 lines 42-43, CDMA is used in private wireless and public wireless systems providing a voice channel for mobile telephone communication corresponds to "a radio communication channel"), when the first mobile station is verified to be a subscriber to the private mobile communication service (see col.17 lines 26-45);

the private base station controller transmitting traffic channel request signals received through the private base transceiver station to the private branch exchange (see col.17 lines 26-45); and

the private base station controller establishing a traffic channel with a mobile terminal of another service subscriber through the private base transceiver station in response to a request for establishment of a traffic channel with the mobile terminal of the service subscriber, the request being received from the private branch exchange



Art Unit: 2618

(see col.17 lines 26-45, col.10 lines 1-3, col.13 lines 19-20 and col.29 lines 42-43, CDMA is used in private wireless and public wireless systems providing a voice channel for mobile telephone communication corresponds to "a traffic channel").

Regarding claim 11, McConnell et al. disclose the first mobile station sends a signal indicating that the first mobile station is busy to the public base transceiver station when a traffic channel request signal is received (see col.10 lines 1-3, col.13 lines 19-20 and col.29 lines 42-43, CDMA is used in private wireless and public wireless systems providing a voice channel for mobile telephone communication corresponds to "a traffic channel") through the public base transceiver station while the first mobile station is provided with the private mobile communication service through the private base transceiver station (see col.29 lines 23-45, when the mobile station is in overlapped coverage are between public and private wireless networks, it sends report or request for hand off corresponds to "mobile station is busy to").

Regarding claim 12, McConnell et al. disclose a method of processing a call using a private mobile communication service system, comprising steps of:

when a mobile station moves from a public-only cell area to a public/private common cell area, establishing a radio communication channel (see col.10 lines 1-3, col.13 lines 19-20 and col.29 lines 42-43, CDMA is used in private wireless and public wireless systems providing a voice channel for mobile telephone communication corresponds to "a radio communication channel") between said mobile station and a public base transceiver station disposed within said public/private common cell area and providing a public mobile communication service, while also establishing another radio communication channel between said mobile station and a private base transceiver

Art Unit: 2618

station disposed within said public/private common cell area and providing a private mobile communication service (see col.29 lines 23-51, McConnell teaching soft handoffs between private and public wireless networks corresponds to a mobile station moves between cell area, "soft handoffs" corresponds to "while also establishing another radio communication channel");

determining if there is a call request, indicative of a call to a called party, by detecting a dialed phone number input by said mobile station (see col.27 lines 1-10); checking for an identifier (see col.13 lines 32-39), indicating a request for said private mobile communication service, added to said phone number (see col.27 lines 1-10); establishing a traffic channel )see col.10 lines 1-3, col.13 lines 19-20 and col.29 lines 42-43, CDMA is used in private wireless and public wireless systems providing a voice channel for mobile telephone communication corresponds to "a traffic channel") between said mobile station and said public base transceiver station to receive the public mobile communication service, when the identifier is not added to the phone number (see col.27 lines 1-30); and establishing a traffic channel between said mobile station and said private mobile communication service system to receive the private mobile communication service, when the identifier is added to the phone number (see col.27 lines 1-30).

Regarding claim 13, McConnell et al. disclose the identifier indicating a request for the private mobile communication service is a character # or a character \* (see col.27 lines 1-30).

Regarding claim 14, McConnell et al. disclose verifying whether the mobile station is a subscriber to the private mobile communication service (see col.5 lines 26-45), when

Art Unit: 2618

a request for establishing a radio communication channel is received by the private base transceiver station from the mobile station (see col.10 lines 1-3, col.13 lines 19-20 and col.29 lines 42-43, CDMA is used in private wireless and public wireless systems providing a voice channel for mobile telephone communication corresponds to "a radio communication channel"); establishing a radio communication channel, to enable telephonic communication, between a private communication service apparatus and the mobile station when it is verified that the first mobile station is a subscriber to the private mobile communication service (see col.13 lines 54-65); and establishing a traffic channel over a network to the called party corresponding to the dialed phone number, if a traffic channel request is received from the mobile station with which the radio communication channel is established (see col.27 lines 1-10, see col.10 lines 1-3, col.13 lines 19-20 and col.29 lines 42-43, CDMA is used in private wireless and public wireless systems providing a voice channel for mobile telephone communication corresponds to "a traffic channel").

Regarding claim 15, McConnell et al. disclose the first mobile station sends a signal indicating that the first mobile station is busy to the public base transceiver station when a traffic channel (see col.10 lines 1-3, col.13 lines 19-20 and col.29 lines 42-43, CDMA is used in private wireless and public wireless systems providing a voice channel for mobile telephone communication corresponds to "a traffic channel") request signal is received through the public base transceiver station while the first mobile station is provided with the private mobile communication service through the private base transceiver station (see col.29 lines 23-45, when the mobile station is in overlapped

Art Unit: 2618

coverage are between public and private wireless networks, it sends report or request for hand off corresponds to "mobile station is busy to").

Regarding claim 16, McConnell et al. disclose determining, when the called party is a called mobile terminal, whether the called mobile terminal is registered in said private communication service apparatus as a subscriber of said private mobile communication service (see col.27 lines 1-10); switching the call to said private base transceiver station through a switch of a private branch exchange (see col.27 lines 11-30), when it is determined that the called mobile terminal is registered in said private communication service apparatus as a subscriber of said private mobile communication service, to enable telephonic communication between the mobile station and the called mobile terminal over a private wireless network; and switching the call to a public switched telephone network through the switch of the private branch exchange (see col.27 lines 28-30), when it is determined that the called mobile terminal is not registered in said private communication service apparatus as a subscriber of said private mobile communication service and establishing a traffic channel over the public switched telephone network and a public mobile communication network to enable telephonic communication between the mobile station and the called mobile terminal (see col.27 lines 10-11).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

Art Unit: 2618

the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 8-9 are rejected under 35 U.S.C. 103(a) as being obvious over McConnell et al. (US Patent 6,970,719) in view of Miller, II et al. (US Patent 5,406,615).

Regarding claim 8, McConnell et al. disclose the first mobile station is operated as a private network or a public network mobile phone when it is determined that the identifier is added to the dialed phone number (see col.27 lines 2-11); however, McConnell et al. fail to specifically disclose a mobile phone unit operates a private mobile communication service-only frequency channel and a public mobile communication service-only frequency channel.

In the related art, a mobile station can be used in both public cellular systems and private cellular systems, Miller, II et al. disclose a mobile phone unit operates a private mobile communication service-only frequency channel and a public mobile communication service-only frequency channel (see fig.1, elements 107, 115, 104 and col.1 lines 45-56). Therefore It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of McConnell et al. with the a mobile phone unit transmits and receives a first frequency band range for a typical wide cellular system and a second frequency range, different from the first frequency band range, for a local wireless system teaching of Miller, II et al. in order to provide a universal mobile phone unit to operate different frequencies for different cellular networks, so that a universal mobile handset with a signal antenna having a circuitry selectively interconnects one of the first and second frequency operative with wide cellular network and local wireless network, respectively.

Regarding claim 9, the combined McConnell et al. and Chang et al. disclose said first mobile station further comprising an antenna matching unit that receives RF signals in different frequency bands of private and public mobile communication service-only channel, respectively, through an antenna, separates the RF signals, and matches the separated RF signals with the corresponding private or public network Radio Frequency (see Miller, II et al., col.2 lines 19-31, "common baseband circuitry" corresponds to "antenna matching unit").

### **Conclusion**

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Chang et al. (US Patent 6,529,491), describes Private/Residential code division multiple access wireless communication system.


Any inquiry concerning this communication or earlier communications from the examiner should be directed Tu Nguyen whose telephone number is 571-272-7883.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban, can be reached at (571) 272-7899. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you

Art Unit: 2618

have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



November 11, 2006